# Fort Laramie National Historic Site, Accuracy Assessment Metadata

Identification Information:

Citation:

Citation Information:

Originator: U.S. Geological Survey Originator: Department of the Interior

Publication\_Date: 199905

Title: Fort Laramie National Historic Site Accuracy Assessment Geospatial\_Data\_Presentation\_Form: database and report

Series Information:

Series\_Name: USGS-NPS Vegetation Mapping Program Issue Identification: Fort Laramie National Historic Site

**Publication Information:** 

Publication\_Place: Denver, CO

Publisher: USGS Biological Resources Division, Center for Biological Informatics Online\_Linkage: http://biology.usgs.gov/npsveg/fola/index.html#accuracy\_assessment\_info

Larger\_Work\_Citation: Citation Information:

Originator: US Dept of Interior

Originator: National Biological Service) Originator: and National Park Service

Publication Date: 199411

Title: Field Assessment Procedures

Geospatial\_Data\_Presentation\_Form: document

Edition: Final Draft
Publication\_Information:
Publication Place: Denver, CO

P. 11: 1 Hagga P. D. 12: 1

Publisher: USGS/BRD/Center for Biological Informatics

Other\_Citation\_Details:

Report prepared under contract by the the USGS Center for  $% \left( 1\right) =\left( 1\right) \left( 1\right) \left($ 

Biological Informatics in cooperation with Environmental Systems

Research Institute, 380 New York Street, Redlands, CA.

Online\_Linkage: http://biology.usgs.gov/npsveg/fola/pi\_rpt.pdf#assessment

### Description:

Abstract:

The accuracy assessment field work was performed in August and September, 1998 to verify the accuracy of the vegetation communities spatial data developed by the USGS-NPS Vegetation Mapping Program for Fort Laramie National Historic Site. The data points were randomly distributed stratified according to vegetation association over the project area according to protocols developed by the Program. Points were located by GPS navigation and the community information was collected at the point, without knowledge of the attributes of the vegetation spatial data. The data points were compared to the attributes of the polygon in which they were contained. Attributes of the polygons or accuracy assessment points that did not match were changed during later analysis due to errors in the AA methodology or map attribution errors. A contingency table was completed from the final dataset.

Purpose:

To verify the accuracy of the mapped vegetation communities at Fort Laramie National Historic Site.

Time\_Period\_of\_Content:

Time Period Information:

### USGS-NPS Vegetation Mapping Program Fort Laramie National Historic Site

Single\_Date/Time:
Calendar\_Date: 199808
Currentness\_Reference: Ground Condition
Status:
Progress: Complete

Maintenance and Update Frequency: None Planned

Spatial\_Domain:

Bounding\_Coordinates:

West\_Bounding\_Coordinate: -104.5769 East\_Bounding\_Coordinate: -104.5269 North\_Bounding\_Coordinate: 42.225 South Bounding Coordinate: 41.18889

Description\_of\_Geographic\_Extent: Fort Laramie National Historic Site, Wyoming, USA

Keywords:

Theme:

Theme\_Keyword\_Thesaurus: none
Theme\_Keyword: National Park Service
Theme\_Keyword: U.S. Geological Service
Theme\_Keyword: The Nature Conservancy
Theme\_Keyword: Aerial Information Systems
Theme\_Keyword: Center for Biological Informatics

Theme\_Keyword: land cover Theme\_Keyword: vegetation Theme\_Keyword: alliance Theme\_Keyword: association

Theme\_Keyword: Environmental System Research Institute

Place:

Place\_Keyword\_Thesaurus: none

Place\_Keyword: Fort Laramie National Historic Site

Place\_Keyword: Wyoming

Taxonomy:

Keywords/Taxon:

 $Taxonomic\_Keyword\_The saurus:\ None$ 

Taxonomic\_Keywords: Standardized National Vegetation Classification System

Taxonomic\_Keywords: vegetation classification

Taxonomic\_Keywords: alliance

Taxonomic\_Keywords: community association

Taxonomic\_Classification:
Taxon\_Rank\_Name: Kingdom
Taxon\_Rank\_Value: Plantae
Access\_Constraints: None

Use\_Constraints:

Any person using the information presented here should fully understand the data collection and compilation procedures, as described in these metadata, before beginning analysis. The burden for determining fitness for use lies entirely with the user. For purposes of publication or dissemination, citations should be given to the U.S. Geological Survey and the National Park Service.

Point\_of\_Contact:

Contact Information:

Contact Person Primary:

Contact Person: USGS-NPS Vegetation Mapping Program Coordinator

Contact Organization:

USGS Biological Resources Division, Center for Biological Informatics

Contact\_Address:

Address\_Type: Physical Address

## USGS-NPS Vegetation Mapping Program Fort Laramie National Historic Site

Address: USGS

Address: Biological Resources Division, CBI

Address: Building 810, Room 8000

City: Denver

State\_or\_Province: Colorado Postal Code: 80225-0046

Country: USA Contact\_Address:

Address\_Type: Mailing Address

Address: USGS

Address: Biological Resources Division, CBI Address: PO BOX 25046, DFC, MS302

City: Denver

State\_or\_Province: Colorado Postal\_Code: 80225-0046

Country: USA

Contact\_Voice\_Telephone: (303) 202-4220 Contact\_Facsimile\_Telephone: 303-202-4229 Contact\_Facsimile\_Telephone: 303-202-4219 (org) Contact\_Electronic\_Mail\_Address: gs-b-npsveg@usgs.gov

Browse Graphic:

Browse\_Graphic\_File\_Name: http//biology.usgs.gov.npsveg/fola/images/folaaa.jpg

Browse\_Graphic\_File\_Description:

309 Kbyte file showing vegetation associations and location of accuracy assessment points

Browse\_Graphic\_File\_Type: JPG

Security Information:

Security Classification System: None

Security Classification: None

Security\_Handling\_Description: None

Native Data Set Environment: UNIX-ARC/INFO

### Data\_Quality\_Information:

Attribute Accuracy:

Attribute\_Accuracy\_Report:

The attributes for the accuracy assessment were recorded in the field in August, 1997. Vegetation associations were identified based on the field key and plant identification. If additional communities were found within a 50 meter radius of the plot center, they were recorded as well. During the analysis, it was concluded that some attributes were in error and changed to match the mapped attributes. This was done by examination of the aerial photographs under stereoscopic view. The attributes were in error due to 1) spatial error in the GPS derived coordinates (4-8 meters), 2) change of vegetation community due to temporal changes, or mis-identification of the community on the ground.

Logical\_Consistency\_Report:

All attributes are codes that correspond to vegetation communities and have been checked for typographical and logical errors.

Completeness\_Report: All points were collected and analyzed.

Positional\_Accuracy:

Horizontal Positional Accuracy:

Horizontal Positional Accuracy Report:

The points were located using a military-style GPS receiver (PLGR),

which has a published accuracy of 4-8 meters.

Vertical Positional Accuracy:

Vertical\_Positional\_Accuracy\_Report: Not applicable

Lineage:

### **USGS-NPS Vegetation Mapping Program Fort Laramie National Historic Site**

Methodology:

Methodology\_Type: Field Methodology\_Identifier:

Methodology\_Keyword\_Thesaurus: None Methodology Keyword: Accuracy Assessment

Methodology\_Description:

Data points were located by use of a PLGR GPS receiver by Wyoming Natural Heritage Program and Fort Laramie National Historic Site personnel. Vegetation communities were identified on the basis of a dichotomous field key and plants species present.

Methodology:

Methodology\_Type: Lab Methodology Identifier:

Methodology\_Keyword\_Thesaurus: None Methodology\_Keyword: Accuracy Assessment

Methodology\_Description:

Accuracy assessment points were compiled into an ARCINFO point coverage and intersected with the vegetation community coverage. The resulting INFO file was exported into a text file, imported into a spreadsheet, and the attributes from the accuracy assessment and the spatial data were compared. If the attributes did not compare, an analysis of the mismatch was made and either the AA attribute or the map attribute was changed based on identification of the community on the aerial photo.

Source Information:

Source\_Citation: Citation\_Information:

Originator: USGS-Biological resources Division

Originator: U.S. National Park Originator: Department of the Interior

Publication Date: 199411

Title: Accuracy Assessment Procedures, NBS/NPS Vegetation Mapping Program

Geospatial Data Presentation Form: document

Publication\_Information: Publication\_Place: Denver, CO

Publisher: USGS, Biological Resources Division, Center for Biological Informatics

Other\_Citation\_Details:

Prepared by: Environmental Systems Research Institute, Inc. Redlands, CA and National Center of Geographic Information and Analysis, University of California, Santa Barbara, CA and The Nature Conservancy, Arlington, VA under contract rom U.S. Department of the Interior Biological Resources

Division and National Park Service.

Type\_of\_Source\_Media: electronic document

Source\_Time\_Period\_of\_Content:

Time\_Period\_Information: Range\_of\_Dates/Times: Beginning\_Date: 199411 Ending\_Date: Present

Source\_Currentness\_Reference: publication date

Source Citation Abbreviation: Accuracy Assessment Procedures Document

Source Contribution:

This document established the procedures and protocols

for the accuracy assessment at Fort Laramie National Historic Site.

Source\_Information:

Source\_Citation:

Citation\_Information:

### **USGS-NPS Vegetation Mapping Program Fort Laramie National Historic Site**

Originator: U.S. Geological Survey Originator: Department of the Interior

Publication\_Date: 199809

Title:

Fort Laramie National Historic Site Spatial Vegetation

Data: Cover type / Association level of the National Vegetation Classification System Geospatial\_Data\_Presentation\_Form: document

Series\_Information:

Series\_Name: USGS-NPS Vegetation Mapping Program Issue\_Identification: Fort Laramie National Historic Site

Publication\_Information:
Publication Place: Denver, CO

Publisher: USGS, Biological Resources Division, Center for Biological Informatics

Other Citation Details:

Created in large part by Environmental Systems Research Institute, Inc. Redlands, CA under

contract rom USGS/BRD/CBI.
Type\_of\_Source\_Media: Disc

 $Source\_Time\_Period\_of\_Content:$ 

Time\_Period\_Information: Single\_Date/Time: Calendar Date: 199808

Source\_Currentness\_Reference: ground condition

Source Citation Abbreviation:

Spatial data of vegetation communities for Fort Laramie National Historic Site.

Source Contribution:

The vegetation spatial data were tested for accuracy with the AA data.

Process Step:

Process\_Description:

The accuracy assessment field work was performed in June 1997 to verify the accuracy of the vegetation communities spatial data developed by the USGS-NPS Vegetation Mapping Program for Fort Laramie National Historic Site. the data points were randomly distributed stratified according to vegetation association over the project area according to protocols developed by the Program. Points were located by GPS navigation and the community information was collected at the point, without knowledge of the attributes of the vegetation spatial data.

Source\_Used\_Citation\_Abbreviation: Spatial data of vegetation communities for Fort Lararmie National Historic Site

Source Used Citation Abbreviation: Accuracy Assessment Procedure Document

Process\_Date: 199706

#### Spatial\_Data\_Organization\_Information:

Indirect\_Spatial\_Reference:

The ecology field sites were digitized to indicate the area for which a TNC

ecologist conducted an ecological field sampling.

 $Direct\_Spatial\_Reference\_Method: Point$ 

Point\_and\_Vector\_Object\_Information:

SDTS\_Terms\_Description:

SDTS\_Point\_and\_Vector\_Object\_Type: Point

#### Spatial\_Reference\_Information:

Horizontal\_Coordinate\_System\_Definition:

Planar:

Grid\_Coordinate\_System:

Grid\_Coordinate\_System\_Name: Universal Transverse Mercator

Universal\_Transverse\_Mercator:

UTM\_Zone\_Number: 13 Transverse Mercator:

Longitude\_of\_Central\_Meridian: -105 Latitude\_of\_Projection\_Origin: 0

False\_Easting: 50000 False\_Northing: 0

Scale Factor at Central Meridian: .9996

Planar Coordinate Information:

Planar\_Coordinate\_Encoding\_Method: coordinate pair

Coordinate\_Representation:
Abscissa\_Resolution: 1
Ordinate\_Resolution: 1
Planar\_Distance\_Units: meters

Geodetic Model:

Horizontal\_Datum\_Name: North American Datum of 1983

Ellipsoid\_Name: Geodedic Reference System 80

Semi-major\_Axis: 6378137

Denominator of Flattening Ratio: 298.257

#### Entity\_and\_Attribute\_Information:

Overview\_Description:

Entity\_and\_Attribute\_Overview:

The system is organized hierarchically to support conservation and resource stewardship applications across multiple scales. The upper levels of the hierarchey are based on the physical form or structure of the vegetation (physiognomy) and have been refined from the international standards developed by the United Nations Educational, Scientific, and Cultural Organization (UNESCO). The two most detailed levels of the hierearchy are based on the species composition of the existing vegetation (floristics) and reflect the phyto-sociological standards that were originally developed by European ecologists. The vegetation classification is continually advanced through the collection and analysis of new field data and will be greatly strengthened during the course of the NBS/NPS mapping efforts. National Park Service/Biological Resources Division Vegetation Inventory and Mapping Program for Fort Laramie National Historic Site, Wyoming, Final Community Association Classification, September 4, 1998. Alliance/Community 01=Populus Deltoides Temporarily Flooded Woodland Alliance Populus deltoides / Symphoricarpos occidentalis Woodland 02=Pinus Ponderosa Wooded Medium-Tall Herbaceous Alliance Pinus ponderosa - Schizachyrium scoparium Wooded Herbaceous Vegetation 03=Not Used 04=Salix Exigua Temporarily Flooded Shrubland Alliance Salix exigua Shrubland 05=Stipa Comata Bunch Herbaceous Alliance Stipa comata - Yucca glauca Herbaceous Vegetation 06=Typha (Angustifolia, Latifolia) - (Scirpus spp.) Semipermanently Flooded Herbaceous Alliance Typha latifolia Western Herbaceous Vegetation 07=Spartina Pectinata Temporarily Flooded Herbaceous Alliance Spartina pectinata - Scirpus pungens Herbaceous Vegetation 08=Carex Nebrascensis Seasonally Flooded Herbaceous Alliance Carex nebrascencis Herbaceous Vegetation 09=Alliance Undefined Bromus enermis Disturbed Herbaceous Vegetation 10=Alliance Undefined Upland Weedy Herbaceous Vegetation 11=Pascopyrum Smithii Herbaceous Alliance Pascopyrum smithii Herbaceous Vegetation 12=Stipa Comata - Bouteloua Gracilis Herbaceous Alliance Stipa comata - Bouteloua gracilis - Carex filifolia Herbaceous Vegetation 13=Alliance Undefined Sporobolus cryptandrus Disturbed Herbaceous Vegetation 14=Sand Flats

Temporarily Flooded Sparse Vegetation Riverine Sand Flats - Bar Sparse

Vegetation 15=Alliance Undefined Upland Sand and Gravel Sparse

Vegetation 16=Bouteloua Gracilis Herbaceous Alliance Bouteloua gracilis

- Carex filifolia Herbaceous Vegetation 17=Rock Outcrop / Butte Sparse

Vegetation Sandstone Rock Outcrop Sparse Vegetation 98 = Water Body

 $99 = Urban/Built-Up/Maintained\ Lawn/Canal/Road/Mowed\ Road\ ROW/Cut\ and$ 

Fill.

Entity\_and\_Attribute\_Detail\_Citation:

Grossman, D. Et al. 1994. National Park Service Vegetation Mapping Project, Standardized National Vegetation Classificatrion System 209 pp.

#### Distribution Information:

Distributor:

Contact Information:

Contact Person Primary:

Contact\_Person: USGS-NPS Vegetation Mapping Program Coordinator Contact\_Organization: USGS/BRD, Center for Biological Informatics

Contact\_Position: Geospatial Technology Specialist

Contact Address:

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Address: Room 8000, MS302

City: Denver

State\_or\_Province: CO Postal\_Code: 80225-0046

Country: USA

Contact\_Voice\_Telephone: (303) 202-4220 Contact\_Facsimile\_Telephone: 303-202-4219 (org) Contact\_Electronic\_Mail\_Address: gs-b-npsveg@usgs.gov

Resource\_Description: FOLA Accuracy Assessment

Distribution Liability:

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Standard Order Process:

Digital\_Form:

Digital\_Transfer\_Information:

Format\_Name: HTML Digital Transfer Option:

Online\_Option:

Computer\_Contact\_Information:

Network Address:

Network\_Resource\_Name: http://biology.usgs.gov/npsveg/fola/index.html#accuracy\_assessment\_info

Fees: None

### USGS-NPS Vegetation Mapping Program Fort Laramie National Historic Site

Metadata\_Reference\_Information: Metadata Date: 20011022

Metadata\_Review\_Date: 20060831

Metadata\_Contact:
Contact Information:

Contact\_Organization\_Primary:

Contact\_Organization: USGS-NPS Vegetation Mapping Program Coordinator

Contact\_Address:

Address\_Type: mailing and physical address

Address:

U.S. Geological Survey, Center for Biological Informatics, MS 302,

Room 8000, Building 810, Denver Federal Center

City: Denver

State\_or\_Province: Colorado

Postal\_Code: 80225 Country: USA

Contact\_Voice\_Telephone: (303) 202-4220 Contact\_Facsimile\_Telephone: (303) 202-4219

Contact\_Electronic\_Mail\_Address: gs-b-npsveg@usgs.gov

Metadata\_Standard\_Name: FGDC-STD-001.1-1999 Content Standard for Digital Geospatial Metadata, 1998 Part 1:

Biological Data Profile, 1999

Metadata\_Standard\_Version: FGDC-STD-001-1998

Metadata Extensions:

Online\_Linkage: http://biology.usgs.gov/fgdc.bio/bionwext.txt Profile\_Name: Biological Data Profile FGDC-STD-001.1-1999